



IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

#27
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6/14/01

Inventor(s): Lawrence Taugher

Serial No.: 08/823823

Examiner: Ali Neyzari

Filing Date: Mar 25, 1997

Group Art Unit: 2752

Title: Write Protect For Rewritable Compact Disks And Digital Video Disks

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COMMISSIONER FOR PATENTS
Washington, D.C. 20231

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith in triplicate is the Appeal Brief in this application with respect to the Notice of Appeal filed on 04/02/2001.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$310.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

() (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d) for the total number of months checked below:

() one month	\$110.00
() two months	\$390.00
() three months	\$890.00
() four months	\$1390.00

() The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$310.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25.

(X) A duplicate copy of this transmittal letter is enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit: 6/4/01

Typed Name: Tara A. Schulze

Signature:

Respectfully submitted,

Lawrence Taugher

By

Augustus W Winfield

Attorney/Agent for Applicant(s)

Reg. No. 34,046

Date: 6/4/01

HEWLETT-PACKARD COMPANY
IP Administration, Mailstop 20BN
P.O. Box 10301
Palo Alto, California 94303-0890

PATENT APPLICATION
ATTORNEY DOCKET NO. 10970451-4

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UNITED STATES PATENT AND TRADEMARK OFFICE

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Inventor(s): Lawrence N. Taugher

Serial No.: 08/823,823

Examiner: Ali Neyzari

Filing Date: 03/25/97

Group Art Unit: 2752

Title: WRITE PROTECT FOR REWRITABLE COMPACT DISKS AND DIGITAL VIDEO
DISKS

THE ASSISTANT COMMISSIONER OF PATENTS
Washington, D.C. 20231

BRIEF ON APPEAL

INTRODUCTION

Pursuant to the provisions of 37 CFR § 1.191 *et seq.*, applicants hereby appeal to the Board of Patent Appeals and Interferences (the "Board") from the examiner's final rejection dated 01/02/01. A notice of appeal was timely filed on 04/02/01, in accordance with 37 CFR § 1.8. This brief on appeal is being filed in triplicate (37 CFR § 1.192(a)) and is accompanied by the requisite fee (37 CFR 1.192(a) and 1.17(c)).

REAL PARTY IN INTEREST

The entire interest in the present application has been assigned to Hewlett-Packard Company, as recorded at reel 8690, frame 0272.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

Claims 1-11 are pending in the application. Claims 1-11 have been finally rejected.

Claims 1-11 are on appeal.

STATUS OF AMENDMENTS

There are no after-final amendments. All prior amendments have been entered.

SUMMARY OF INVENTION

The invention relates generally to digital mass memory media, and more specifically to rewritable optical disks, and still more specifically to devices and methods used to prevent writing to a rewritable optical disk. Industry standard CD-RW drives use a phase change material (figure 2, 200) having a transparency that can be reversibly changed by heating, and then cooling at a controlled rate. A laser (figure 1, 104) is used to heat, and then cool small areas at a controlled rate. Laser power must be calibrated for each disk medium. Before writing or erasing, a standard CD-RW drive must successfully calibrate laser power by writing into a Power Calibration Area (figure 3, 304) on the medium. If the drive cannot read its calibration patterns in the Power Calibration Area, it will not erase or write in the data area of the disk. In some example embodiments of the invention, the Power Calibration Area is temporarily obscured, preventing a successful calibration. For example, the Power Calibration Area may be covered by removable opaque plastic rings (figure 4, 406; page 4, line 24 through page 5, line 13) or adhesive labels (figure 5, 500; page 5, lines 13-23). In other example embodiments, the Power Calibration Area is permanently obscured or covered for permanent write protection. For example, the surface of the disk in the Power Calibration Area may be scratched or abraded (figure 6; page 6, lines 5-12). Finally, the phase change material in the Power Calibration Area may be intentionally damaged (page 6, lines 13-20), rendering the disk permanently write protected.

Claim 1 specifies an apparatus for write protection of a disk (figures 1 and 3, 102), the disk having a power calibration area (figure 3, 304; page 4, lines 14-19) and a data area (figure 3, circle 302 defines the beginning of the data area; page 4, lines 10-12), the apparatus comprising a ring (figure 4, 406; figure 5, 500) capable of being attached to the disk, the ring having a portion that covers the power calibration area but not the data area.

Claim 2, dependent on claim 1, further specifies the disk having a central hole (figures 3 and 4, 300) and an indented area (figure 4, 402; page 4, line 24, through page 5, line 6) formed around the hole, the ring adapted for insertion into the indented area.

Claim 3, dependent on claim 1, further specifies that the ring comprises an adhesive label (figure 5, 500; page 5, lines 13-20).

Claim 4, dependent on claim 1, further specifies that the ring is transparent initially, and then darkened by exposure to a laser (page 6, lines 21-28).

Claim 5 (independent) specifies an apparatus for write protection of a disk (figures 1 and 3, 102), the disk having a central hole (figures 3 and 6, 300) and a power calibration area (figure 3, 304; page 4, lines 14-19), the apparatus comprising a holder (figure 6, 600; page 6, lines 5-12) adapted to fit into the central hole of the disk and an abrasive tool (figure 6, 606) rotating around the holder, adapted to abrade the power calibration area when rotated.

Claim 6 (independent) specifies a method of write protection for a disk (figures 1 and 3, 102), the disk having a power calibration area (figure 3, 304; page 4, lines 14-19) for a laser, the method comprising shielding the power calibration area of the disk from light sufficiently to prevent a disk drive from using the power calibration area to calibrate a laser (page 4, line 19; page 4, line 28 through page 5, line 2; page 5, lines 17-18 and lines 20-21; page 6, lines 8-9 and lines 24-25).

Claim 7, dependent on claim 6, further specifies that the disk is adapted to receive light from a laser having a particular wavelength (page 5, lines 6-7), the step of shielding further comprising covering the power calibration area with a material that is non-transparent at the particular wavelength (page 5, lines 6-9 and lines 21-23).

Claim 8, dependent on claim 7, further specifies that the material comprises an adhesive label (figure 5, 500; page 5, lines 13-20).

Claim 9, dependent on claim 7, further specifies that the material comprises an ink (page 5, lines 20-21).

Claim 10, dependent on claim 7, further specifies that the material comprises a dye (figure 5, 500; page 5, lines 13-20).

Claim 11, dependent on claim 7, further specifies that the material comprises a paint (figure 5, 500; page 5, lines 13-20).

ISSUES

1. Whether claim 1 is unpatentable under 35 U.S.C. § 112, second paragraph, because of the phrase “capable of.”
2. Whether claims 1-11 are unpatentable under 35 U.S.C. § 103(a) in light of prior art disclosed in the specification, in view of “CD Recordable Handbook” by Parker and Starrett, and further in view of Japanese Patent Number 404095287 (Takahashi).

GROUPING OF CLAIMS

Claims 1-11 are pending in the application.

Claims 1-11 are on appeal.

Each of the claims 1, 4, 5, 6 and 7 stands on its own, as discussed in the following Argument section.

For purposes of the present appeal, claims 2-3 stand or fall together with claim 1.

For purposes of the present appeal, claims 8-11 stand or fall together with claim 7.

ARGUMENT

Outline

- I. Summary of the brief on appeal.
- II. Summary of the requirements for indefiniteness under 35 U.S.C. §112.
- III. Discussion of claim 1 in relation to issue 1.
- IV. Summary of the requirements for obviousness under 35 U.S.C. §103.
- V. Discussion of claim 1 in relation to issue 2.
- VI. Discussion of claims 4, 5, 6, and 7 in relation to issue 2.

I. Summary of the brief on appeal.

Issue 1:

The phrase “capable of” defines a particular capability or purpose that is recited by the following limitation, and sets definite boundaries on the patent protection sought.

Issue 2:

A. The prior art cited by the applicant, Parker and Starrett, and Takahashi, individually or combined, do not teach or suggest providing write protection by covering a functional area of a recording medium.

B. No *prima facie* case of obviousness has been established, because there is no suggestion or motivation in the prior art to modify the references.

C. No *prima facie* case of obviousness has been established, because the proposed modification of the prior art would change the principle of operation of the prior art invention being modified.

D. No *prima facie* case of obviousness has been established for claims 4-7 because no art has been cited for the limitations of the claims.

II. Summary of the requirements for indefiniteness under 35 U.S.C. §112.

From MPEP 2173.05(g):

“There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper.”

“A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.”

III. Discussion of claim 1 in relation to issue 1.

The examiner asserts that because of the phrase “capable of”, the claim is indefinite because it is unclear whether the limitations following the phrase are part of the invention. The examiner’s assertion contradicts MPEP 2173.05(g), and the examiner does not cite any authority other than MPEP 2173.05(g). From MPEP 2173.05(g), the functional language following the phrase is part of the invention just like any other limitation of the claim. MPEP 2173.05(g) discusses case law in which the phrases “incapable of” and “adapted to” are acceptable. The choice of “capable of” is no different than the phrases found acceptable in the case law cited in MPEP 2173.05(g).

IV. Summary of the requirements for obviousness under 35 U.S.C. §103.

The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to

one of ordinary skill in the art, to modify the reference or to combine reference teachings.
MPEP 2143

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

V. Discussion of claim 1 in relation to issue 2.

A. A combination of the prior art does not teach or suggest all the claim limitations.

In claim 1, a functional area of the disk that is necessary for recording, the power calibration area, is covered. Covering the power calibration area physically prevents operation of the power calibration area, which in turn physically prevents writing to the disk. No detector is required to see if the power calibration area is covered. If the power calibration area is covered, the power calibration area cannot be used, and no writing can occur.

Applicant stipulates that the power calibration area is known in the prior art (Parker and Starrett). Applicant further stipulates that rings exist in the prior art, placed in locations that do not interfere with operation of a recordable medium, detectable by software, for the purpose of indicating to the software that the software should not write to the medium (Takahashi).

There is no teaching or suggestion in the prior art to cover or to physically prevent operation of a functional area of a recordable medium. In all the prior art cited, the presence of various labels or rings or other devices, placed in locations that do not interfere with operation of a recordable medium, may be sensed by a detector or software, and write

protection is a logical choice. Software can either choose to ignore the presence of the device, or software may not include a capability to sense the presence of the device. That is, in all the prior art, writing can still physically occur, because nothing physically interferes with the functional areas of the recordable medium.

In paper 25, page 3, the examiner states (emphasis supplied): "To cover any area of any subject in order to prevent an operation to take place in such an area is a common practice and is nothing new in the art. In fact Takahashi in Japanese patent No 404095287 discloses recording inhibition by detachable seal 8 (Fig 1)." First, the phrase "any area" overstates the prior art. The examiner has not cited any prior art for covering a functional area of a recordable medium, thereby physically preventing writing to the recordable medium. In all the prior art, a non-functional area is covered. Second, Takahashi does not support the examiner's position but instead supports the applicant's position. Takahashi, in the English summary states: "Accordingly, when a detector for detecting whether the recording inhibition seal 8 exists or not is provided on a recording/reproducing device side, when the recording inhibition seal 8 is stuck, it is decided to be in a recording inhibition state." Takahashi expressly discusses detecting the presence of a seal, and deciding on a recording state. Takahashi does not teach or suggest covering a functional area of the disk, thereby physically preventing recording.

B. Suggestion or motivation to modify the prior art.

The examiner has not provided any suggestion or motivation to modify the prior art. Accordingly, no *prima facie* case of obviousness has been established.

C. Modification of the prior art would change the principle of operation of the prior art invention being modified.

As discussed above, the principle taught in the prior art is to detect the presence of a write inhibiting device, not to physically prevent writing by covering a functional area of a recordable medium. Accordingly, there is no motivation to modify the prior art.

VI. Discussion of claims 4, 5, 6, and 7 in relation to issue 2.

Claim 4, dependent on claim 1, specifies a ring that is initially transparent, that is then darkened by exposure to a laser. The examiner has cited no prior art, individually or in combination, teaching or suggesting a transparent ring that is darkened by a laser. The examiner has merely lumped claim 4 together with all the other claims. Accordingly, no *prima facie* case for obviousness has been established for claim 4.

Claim 5 specifies an apparatus adapted to abrade the power calibration area of a disk. The examiner has cited no prior art, individually or in combination, teaching or suggesting an apparatus for abrading a functional area of a recordable medium. The examiner has merely lumped claim 5 together with all the other claims. Accordingly, no *prima facie* case for obviousness has been established for claim 5.


Claim 6 specifies that an area of the disk is shielded sufficiently to prevent a disk drive from calibrating a laser. The examiner has cited no prior art, individually or in combination, teaching or suggesting preventing calibration of a laser. The examiner has merely lumped claim 6 together with all the other claims. Accordingly, no *prima facie* case for obviousness has been established for claim 6.

Claim 7, dependent on claim 6, further specifies that the disk is adapted to receive light from a laser and shielding the area of the disk from the particular wavelength of the laser. That is, in claim 7, the laser that illuminates the disk is blocked. The examiner has cited no prior art, individually or in combination, teaching or suggesting shielding a portion of a recordable medium from a laser used to illuminate the recordable medium. The examiner has merely lumped claim 7 together with all the other claims. Accordingly, no *prima facie* case for obviousness has been established for claim 7.

CONCLUSION

In view of the above, applicant respectfully requests that the examiner's rejection of claims 1-11 be reversed.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "A. W. Winfield", written over a horizontal line.

Augustus W. Winfield

Reg. No. 34,046

June 4, 2001

Fort Collins, CO 80528-9599

(970) 898-3142

APPENDIX

CLAIMS ON APPEAL

1. An apparatus for write protection of a disk, the disk having a power calibration area and a data area, the apparatus comprising:

a ring capable of being attached to the disk, the ring having a portion that covers the power calibration area but not the data area.

2. The apparatus of claim 1, the disk having a central hole and an indented area formed around the hole, the ring adapted for insertion into the indented area.

3. The apparatus of claim 1, the ring comprising an adhesive label.

4. The apparatus of claim 1, the ring being transparent initially, and then darkened by exposure to a laser.

5. An apparatus for write protection of a disk, the disk having a central hole and a power calibration area, the apparatus comprising:

a holder adapted to fit into the central hole of the disk; and

an abrasive tool, rotating around the holder, adapted to abrade the power calibration area when rotated.

6. A method of write protection for a disk, the disk having a power calibration area for a laser, the method comprising:

shielding the power calibration area of the disk from light sufficiently to prevent a disk drive from using the power calibration area to calibrate a laser.

7. The method of claim 6, the disk adapted to receive light from a laser having a particular wavelength, the step of shielding further comprising:

covering the power calibration area with a material that is non-transparent at the particular wavelength.

8. The method of claim 7, the material comprising an adhesive label.

9. The method of claim 7, the material comprising an ink.

10. The method of claim 7, the material comprising a dye.

11. The method of claim 7, the material comprising a paint.